REMARKS

Entry of the foregoing and further and favorable consideration of the subject application in light of the following amendments and remarks, pursuant to and consistent with 37 C.F.R. § 1.116, are respectfully requested.

Applicants thank Examiner Chakrabarti for the personal Examiner Interview held on May 8, 2003. The present amendment and response hereby reflects the discussion with the Examiner.

I. CLAIM STATUS & AMENDMENTS

Upon entry of the present amendment, claims 1-8 will be pending in this application.

As stated in the Advisory Action, claims 1-7 were pending in this application when last examined. Claims 4-7 were withdrawn from consideration as being drawn to a non-elected invention.

The present amendment hereby adds new claim 8. Support for claim 8 can be found in the Specification, at least, at page 5, line 32 to page 6, line 2. Thus, no new matter will be introduced by this amendment.

II. REJECTION UNDER 35 U.S.C. § 103(a)

Claims 1-3 remain rejected under 35 U.S.C. § 103(a) for purportedly being obvious over U.S. Patent No. 6,256,405 issued to Some et al. (hereinafter "Some"), in view of U.S. Patent No. 6,171,794 issued to Burchard et al. (hereinafter "Burchard").

New claim 8 incorporates the materials from which the spacer sheet is made, as well as the thickness of the sheet as suggested by the Examiner during the interview. Examiner Chakrabarti indicated that the inclusion of such elements would be favorably considered since the cited prior art does not teach these materials. Thus, the present rejection should not apply to the newly added claim.

Furthermore, as to rejected claims 1-3, Applicants again respectfully traverse this rejection for the reasons set forth in the March 17, 2003 Reply and for the additional reasons set forth below.

During the interview, Examiner Chakrabarti indicated that Some discloses a stimulable phosphor sheet which can absorb and store radiation energy of the radioactive label coming from the fixed DNA fragments through "openings." In this regard, the Examiner relied on the"light guiding sheet 9" of the image reading apparatus of Some as the alleged source of the "openings." The Examiner further indicated that there is support in Some for this position in Figure 8 and at column 8, lines 9-43.

Applicants respectfully submit that this position is in error. There is nothing in Some that indicates that the "light guiding sheet 9" as shown in Figure 1 and discussed at column 8, lines 6-40, or any other sheet, is a spacer sheet having **openings** in areas corresponding to the areas on which groups of the probe compounds are fixed. This is evidenced by the description in Some at column 8, lines 10-24, which reads:

> The light receiving end of the light guiding sheet 9 has a linear shape and is positioned in the vicinity of the stimulable phosphor sheet 1. The exit end of the light guiding sheet 9 is in the form of a ring and is connected to the light receiving surface of a light detector 10 such as photomultiplier for photoelectrically detecting light. This light guiding sheet 9 is made by

> processing a **transparent** thermoplastic resin sheet such as an acrylic synthetic resin and so constituted that the emission introduced from the light receiving end is transmitted to the exit end under repeated total reflection within the light guiding sheet 9 and received by the light receiving surface of the light detector 10 via the exit end.

Some et al. U.S. Patent No. 6,256,405 at column at column 8, lines 10-24 (emphasis added). The structure described in Some is different from that set forth in the instant claims wherein a flat **spacer sheet with openings**, is placed between the DNA micro-array and the radiation image storage panel in step (c).

A comparison of Figure 1 of Some and Figure 1 of the instant application further illustrates this point. In the claimed invention, the single-stranded probe is fixed on a microarray, and the radioactively labeled DNA fragment to be tested is brought into contact with the micro-array. The flat spacer sheet with openings is then placed between DNA microarray and the radiation image storage panel in step (c). Some does not disclose or suggest the use of a **spacer sheet with openings** which is placed between the DNA micro-array and the radiation image storage panel in step (c).

By contrast, the "light guiding sheet 9" of Some is **not** a **flat spacer sheet** with **openings** that is sandwiched between the DNA microarray and the radiation image storage panel. There simply is no relationship between a flat spacer sheet with openings as is used in the claimed invention, and the light guiding sheet.

Moreover, the "light guiding sheet 9" of Some has no **openings**. Instead, the "light guiding sheet 9" of Some is made from a **transparent** thermoplastic resin. See Some, column 8, lines 16-18. Since the "light guiding sheet 9" is transparent (*i.e.*, allows light to go through), one skilled in the art would not be motivated to make "openings" in the sheet.

By contrast, the spacer sheet of the instant invention is made of "non or less radiation-transmitting materials" and **not** a transparent resin. Accordingly, one skilled in the art upon reading the cited references, would not be motivated to make openings in the transparent light guiding of Some. It is well established that there must be some suggestion or motivation in the references to either modify or combine the reference teachings to arrive at the claimed invention. See M.P.E.P. § 2143; In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). The prior must suggest the desirability of the claimed invention. In instantly cited prior art, there simply is no suggestion to make a spacer sheet with openings. The claimed invention is just not contemplated or suggested by the teachings in Some.

Furthermore, Some fails to disclose **first** fixing **probe** DNA fragments to a micro-array and then bringing single-stranded **sample** DNA fragments in contact therewith. Instead, Some first fixes the **sample** DNA onto a transfer support and then bringing single-stranded probe DNA fragments into contact therewith.

Thus, it is clear that Some fails to teach or render obvious each and every element of the claimed invention.

Likewise, Burchard fails to remedy the deficiencies of Some. In this regard, Burchard also fails to disclose or suggest using a spacer sheet having openings which is placed between a DNA micro-array and a radiation image storage panel.

Therefore, in view of the above, Applicants respectfully request withdrawal of this rejection under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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I hereby certify that this correspondence is being sent by Facsimile Transmission to the Assistant Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: May 16, 2003
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(Typed or printed name of person signing the certificate)
Sign: _____
(Signature of person signing the certificate)

Date: May 16, 2003
(Date of Signature)